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# Question Test

## Explain the difference between object and class!

* **Class**: A blueprint or template that defines attributes (fields) and behaviors (methods). Example: Sepeda is a class.
* **Object**: An instance of a class that has real data stored in it. Example: Sepeda spd1 = new Sepeda(); creates an object spd1 from the class Sepeda.

## State your reason why color and engine type can be classified as attribute for car object!

Because **color** and **engine type** describe the **characteristics (state)** of a car. Attributes represent properties of an object, and for a car, its color and engine type are essential properties that differentiate one car from another.

## State one of OOP better point than procedural programming!

OOP provides *encapsulation*, which means data (attributes) and methods (behaviors) are bundled inside classes. This makes code more **organized, reusable, and easier to maintain** compared to procedural programming.

## Is it allowed to define two attributes in one line code such “public String nama, alamat;”?

Yes, it is allowed. You can declare multiple variables of the same type in one line. Example public String nama, alamat; This declares two attributes nama and alamat, both of type String.

## In SepedaGunung class, state your reason why merk, kecepatan, and gear attributes are not written again in this class!

Because SepedaGunung is a subclass of Sepeda (it extends Sepeda). Therefore, it **inherits** the attributes merek, kecepatan, and gear from the parent class Sepeda. There is no need to rewrite them, since inheritance allows code reuse and extension of functionality.

# Assignment

## Take 4 photographs of objects around you, 2 objects must be implementation of inheritance

* Chosen objects (I don’t have the objects but these what I can get):
  1. Sofa → standalone
  2. Wardrobe → standalone
  3. Bed (parent)
  4. Two types of bed as inheritance: BunkBed and CanopyBed

## Observe those objects to define the attribute and method!

* **Sofa**: material, seats → methods: setMaterial, setSeats, showInfo
* **Wardrobe**: doors, hasMirror → methods: setDoors, setMirror, showInfo
* **Bed (parent)**: size, hasStorage → methods: setSize, setStorage, showInfo
* **BunkBed (child)**: levels, hasLadder → methods: setLevels, setLadder, showInfo
* **CanopyBed (child)**: canopyMaterial, hasCurtains → methods: setCanopyMaterial, setCurtains, showInfo

## The rest is on the Assignment folder here are the output

